

Appl. No.: 10/643,780
Amdt. dated 01/30/2006
Reply to Office action of November 2, 2005

Amendments to the Claims:

Please amend Claims 17 and 18 and add new Claims 25-30 as follows:

1. (Previously Presented) An unpowered apparatus comprising:
a flexible material having low permeability to a lighter than air gas, the flexible material defining a chamber;
at least one structural member coupled to the flexible material such that when the chamber is filled with the gas to a known level, the apparatus is substantially neutrally buoyant under ambient conditions; and
a valve to seal the chamber to maintain the known level during use.
2. (Previously Presented) The apparatus of claim 1 further comprising:
a sleeve coupled to the flexible material to retain the at least one structural member.
3. (Original) The apparatus of claim 2, wherein the structural member defines at least a portion of a shape of the chamber.
4. (Original) The apparatus of claim 2, wherein the sleeve is heat welded to the flexible material.
5. (Original) The apparatus of claim 2, wherein the sleeve and the flexible material are a same material.
6. (Previously Presented) An apparatus comprising:
a flexible material having low permeability to a lighter than air gas, the flexible material defining a chamber;
at least one structural member coupled to the flexible material such that when the chamber is filled with the gas to a known level, the apparatus is substantially neutrally buoyant under ambient conditions; and
a plurality of flexible strips coupled to the flexible material to retain at least one structural member adjacent to the flexible material.

Appl. No.: 10/643,780
Amdt. dated 01/30/2006
Reply to Office action of November 2, 2005

7. (Previously Presented) The apparatus of claim 6, wherein the structural member defines at least a portion of a shape of the chamber.

8. (Previously Presented) The apparatus of claim 6, wherein the flexible strips are heat welded to the flexible material.

9. (Previously Presented) The apparatus of claim 6, wherein the flexible strips and the flexible material are a same material.

10. (Previously Presented) An unpowered apparatus comprising:
a flexible material having low permeability to a lighter than air gas, the flexible material defining a chamber; and

at least one structural member coupled to the flexible material, said structural member having a defined weight such that when the chamber is filled with the gas to a known level, the weight of said structural member counteracts a lift caused by said gas, such that said apparatus is substantially neutrally buoyant under ambient conditions.

11. (Previously Presented) The apparatus of claim 10 further comprising:
a sleeve coupled to the flexible material to retain the at least one structural member.

12. (Previously Presented) The apparatus of claim 11, wherein the structural member defines at least a portion of a shape of the chamber.

13. (Previously Presented) The apparatus of claim 11, wherein the sleeve is heat welded to the flexible material.

14. (Previously Presented) The apparatus of claim 11, wherein the sleeve and the flexible material are a same material.

15. (Previously Presented) An apparatus comprising:
a flexible material having low permeability to a lighter than air gas, the flexible material defining a chamber; and

Appl. No.: 10/643,780
Amdt. dated 01/30/2006
Reply to Office action of November 2, 2005

at least one structural member that is a separate structure from that of the flexible material and is coupled to the flexible material such that when the chamber is filled with the gas to a known level, the apparatus is substantially neutrally buoyant under ambient conditions.

16. (Previously Presented) The apparatus of claim 15, wherein the structural member defines at least a portion of a shape of the chamber.

17. (Currently Amended) The apparatus of claim 15, further comprising:
a plurality of flexible strips coupled to the flexible material to retain at least one structural member adjacent to the flexible material,
wherein the flexible strips are heat welded to the flexible material.

18. (Currently Amended) The apparatus of claim 15, further comprising:
a plurality of flexible strips coupled to the flexible material to retain at least one structural member adjacent to the flexible material,

wherein the flexible strips and the flexible material are a same material.

19. (Previously Presented) An apparatus comprising:
a flexible material having low permeability to a lighter than air gas, the flexible material defining a chamber; and
at least one structural member coupled to the flexible material, wherein said structural member is less flexible than said flexible material for maintaining a desired shape of the apparatus.

20. (Previously Presented) The apparatus of claim 19 further comprising:
a sleeve coupled to the flexible material to retain the at least one structural member.

21. (Previously Presented) The apparatus of claim 20, wherein the sleeve is heat welded to the flexible material.

22. (Previously Presented) The apparatus of claim 20, wherein the sleeve and the flexible material are a same material.

Appl. No.: 10/643,780
Amdt. dated 01/30/2006
Reply to Office action of November 2, 2005

23. (Previously Presented) An apparatus comprising:

a flexible material having low permeability to a lighter than air gas, the flexible material defining a chamber; and

at least one structural member having opposed ends, wherein said ends are connected to each other, said structural member defined about a perimeter of said flexible material; and

at least one strip coupled to the flexible material to retain at least one structural member adjacent to the flexible material.

24. (Previously Presented) The apparatus of claim 23, wherein said strip is a sleeve coupled to the flexible material to retain the at least one structural member.

25. (New) An apparatus comprising:

a flexible material having low permeability to a lighter than air gas, the flexible material defining a chamber; and

at least one structural member that is formed of a different material from that of the flexible material and is coupled to the flexible material such that when the chamber is filled with the gas to a known level, the apparatus is substantially neutrally buoyant under ambient conditions.

26. (New) The apparatus of claim 25 further comprising:

a sleeve coupled to the flexible material to retain the at least one structural member.

27. (New) The apparatus of claim 25, wherein the structural member defines at least a portion of a shape of the chamber.

28. (New) The apparatus of claim 26, wherein the sleeve is heat welded to the flexible material.

29. (New) The apparatus of Claim 25 further comprising:

a plurality of flexible strips coupled to the flexible material to retain at least one structural member adjacent to the flexible material.

Appl. No.: 10/643,780
Amdt. dated 01/30/2006
Reply to Office action of November 2, 2005

30. (New) An apparatus comprising:

a flexible material having low permeability to a lighter than air gas, the flexible material defining a chamber; and

at least one structural member that is a separate structure from that of the flexible material and is coupled to the flexible material such that when the chamber is filled with the gas to a known level, the apparatus under ambient conditions floats in air at substantially a same altitude independent of a tether.